Listing of Claims:

Please amend Claims 1 and 4 as shown.

Please cancel Claims 3 and 5 without prejudice and without disclaimer of subject matter.

1.   (Currently Amended) A method of establishing a service connection between first and second network nodes in a WDM optical network for a plurality of network users:

receiving, from each network user, user-preferences prioritizing a plurality of decision criteria defining preferable characteristics of the service connection, wherein the user-preferences rank the plurality of decision-criteria;

selecting, using a prescribed algorithm, a path and a channel wavelength at which information is to be conveyed over the path between the first and second nodes based on the plurality of decision criteria as prioritized in accordance with the user-preferences; and

interconnecting the first and second network nodes over the selected path with the selected channel wavelength,

wherein the plurality of decision-criteria include in-service wavelengths, path length, in-service TRP savings, fragmentation and utilization rate.

2.   (Original)   The method of claim 1 wherein the WDM optical network is a WDM optical ring network.

3.   (Canceled)

4.   (Currently Amended) The method of claim 3 1 wherein the ranking reflects an absolute priority in which higher ranked ones of the decision-criteria are decisive over lower ranked decision-criteria.

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5.   (Canceled)

6.   (Original)   The method of claim 2 wherein the plurality of decision-criteria include at least one decision-criterion selected from the group consisting of in-service wavelengths, path length, in-service TRP savings, fragmentation, and utilization rate.

7.   (Original)   The method of claim 2 wherein the user-preferences establish relative weights assigned to each of the decision-criteria.

8.   (Original)   The method of claim 2 wherein the prescribed algorithm employs a metric in which each decision-criteria is assigned a numerical value.

9.   (Original)   The method of claim 7 wherein the prescribed algorithm employs a metric in which each decision-criteria is assigned a numerical value.

10.   (Original)   The method of claim 9 wherein the metric is defined as a sum of the products of each decision-criterion and a one of the user preferences associated therewith.

11.   (Original)   The method of claim 8 wherein the step of selecting the path and the channel wavelength includes the step of selecting a path and channel wavelength that maximizes the metric.

12.   (Original)   The method of claim 10 wherein the step of selecting the path and the channel wavelength includes the step of selecting a path and channel wavelength that maximizes the metric.

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13. (Original) The method of claim 9 wherein the relative weights assigned to each decision-criterion reflect an absolute priority in which higher ranked ones of the decision-criteria receive a user-preference that is at least one order of magnitude higher than a lower ranked decision-criteria.

14. (Original) The method of claim 1 wherein the WDM optical network is a WDM optical mesh network

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